

SCIENCE MATTERS: COMPOUNDS AND MIXTURES

An elementary science teaching lesson on compounds and mixtures.

Learning Objectives:

- ◇ Students will learn that all compounds are homogeneous and have an exact composition.
- ◇ Students will learn that matter can be combined to form both mixtures and compounds, and will learn the difference between the two.
- ◇ Students will learn that mixtures may be either homogeneous or heterogeneous.
- ◇ Students will learn that there are three types of mixtures, solutions, suspensions and colloids and will be able to recognize examples of each.

Materials

- Various items to create mixtures—See Prep list
- Teacher created worksheet/lab notebook
- Pencil

Classroom Activity: Identifying Mixtures and Compounds

Prepare a variety of mixtures and compounds for the students to identify as one of the following:

- ◇ Mixture—Solution
- ◇ Mixture—Suspension
- ◇ Mixture—Colloid
- ◇ Compound

◇ **Preparation:**

Many different mixtures and compounds can be prepared. The following list is provided as suggested materials that may be used:

◇ Mixture—Solution:

Sugar in Water (heating the water may be required to fully dissolve the sugar)
Lemon Juice in Water

◇ Mixture—Suspension:

Italian Salad Dressing (or other oil and vinegar salad dressing)
Raisins and Cereal
Sand and Rocks
Carbonated Soda

◇ Mixture—Colloid:

Shaving Cream

Marshmallows

Milk

◇ Compound:

Baking soda and vinegar (allow students to combine, or combine in from of them)

Water

Salt

Sugar

Activity:

- ◇ I like to separate students into groups of 3-6 and have them go to 6-8 different stations, each having a different unknown mixture or compound. Have the students decide which label fits each mixture or compound and write the correct label in lab notebook that they will turn in after they have completed the lab.

Assessment:

Use lab notebook. As well has have students answer specific question on an exit ticket.

Exit Ticket Questions:

- ❖ What is an example of a suspension mixture?
- ❖ What are the characteristics of a compound
- ❖ Name 3 types of mixtures?

Create Pre/Post-Test